

**VEHICLE OCCUPANT PRESENCE AND POSITION SENSING SYSTEM****ABSTRACT**

5           The invention characterizes a seat occupant. Sensors in the seat  
determine the position of a seat occupant relative to the seat. The position of the  
seat relative to the vehicle combined with the position of the seat occupant relative to  
the seat determines the location of the seat occupant relative to the vehicle. The seat  
occupant is characterized by the magnitude and Q of capacitance between electrodes  
10 in the seat and other indications. Situations wherein airbag deployment is not  
desired are identified. The position of the occupant relative to the seat, the weight  
of the seat occupant, whether the seat belt is latched, the track position and recline  
angle of the vehicle seat and vehicle deceleration during a crash are combined with  
capacitance and other measurements to estimate the position of the occupant relative  
15 to a possible deploying airbag as the occupant moves toward the airbag during a  
crash.